

1001-90

5/20/2013

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**U.S. ENVIRONMENTAL PROTECTION AGENCY**

Office of Chemical Safety and Pollution Prevention  
Office of Pesticide Programs  
Registration Division (7504P)  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460

EPA Reg. Number:

**1001-90**

Date of Issuance:

**MAY 20 2013**

Term of Issuance:

**Unconditional**

Name of Pesticide Product:

**Rachet Fungicide**

**NOTICE OF PESTICIDE:**

- Registration
  - Reregistration
- Under FIFRA, as amended

Name and Address of Registrant (include ZIP Code):

**Cleary Chemicals, LLC**  
**4020 Aerial Center Parkway, Suite 101**  
**Morrisville, NC 27560**

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

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Signature of Approving Official:

Driss Benmhend, Acting Product Manager (20)  
Fungicide Branch/Registration Division/OPP/OCSP (7504P)

Date:

**MAY 20 2013**

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2. You must submit the following data before the due date of 06/13/2014:
  - a. Storage Stability (830.6317) and Corrosion Characteristics (830.6320) studies.
3. Make the following change to the label:
  - a. Change the product registration number to "EPA Reg. No. 1001-90"
4. Submit one copy of the revised final printed label for the record before the product is released for shipment.

Your release for shipment of the product constitutes acceptance of these conditions.

A copy of the label stamped "Accepted" is enclosed for your records.



Driss Benmhend  
Acting Product Manager (20)  
Fungicide Branch  
Registration Division (7504P)

Enclosure:

- Label stamped "Accepted"
- Similarity Clinic Review dated 12/13/2013
- Product Chemistry Review dated 2/25/2013 {DP408429}
- Acute Toxicity Review dated 2/6/2013 {DP408430}

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GROUP	1	3	FUNGICIDES
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# RACHET™ Fungicide

For the control of listed diseases on ornamentals and golf courses.

### ACTIVE INGREDIENTS:

Thiophanate-methyl (dimethyl [1,2-phenylene]- bis(iminocarbonothioyl)]bis- [carbamate] * .....	36.3%
Tebuconazole (alpha-[2-(4-chlorophenyl)ethyl]-alpha-(1,1-dimethylethyl)- 1H-1,2,4-triazole-1-ethanol) .....	7.1%

<b>OTHER INGREDIENTS:</b> .....	56.6%
<b>TOTAL:</b> .....	100.00%

\* Also known as dimethyl 4,4' -0-phenylenebis[3-thioallophanate]  
 Contains 3.6 pounds thiophanate-methyl per gallon.  
 Contains 0.7 pounds tebuconazole per gallon.

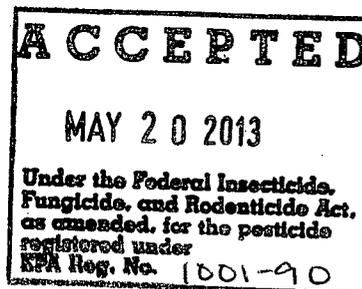
**KEEP OUT OF REACH OF CHILDREN**

**CAUTION / PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
 (If you do not understand the label, find someone to explain it to you in detail.)

**See label booklet for FIRST AID and PRECAUTIONARY STATEMENTS**

**For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.**  
**For Medical Emergencies Only, Call (877) 325-1840.**



EPA Reg. No. 1001-xx  
 EPA Est. No. xxxxx-xx-xxx

NET CONTENTS: 1 quart, 1 gallon, 2.5 gallon

**MANUFACTURED FOR:**  
 Cleary Chemicals LLC.  
 11901 S. Austin Ave.  
 Alsip, IL 60803

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<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact (877) 325-1840 for emergency medical treatment information	
<b>NOTE TO PHYSICIAN</b>	
No specific antidote. Treat symptomatically. The compound does not cause any definite symptoms that would be diagnostic.	

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION / PRECAUCIÓN**

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may result in allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA Chemical-resistance category selection chart.

**All mixers and loaders and applicators must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves for all mixers and loaders and for applicators using hand held equipment
- Chemical-resistant apron for mixers, loaders, and other handlers exposed to the concentrate

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**ENGINEERING CONTROLS**

When handlers use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced, or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to mammals, fish, and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not contaminate water when disposing of equipment washwater or rinsate.

Ground Water Advisory: Tebuconazole is known to leach through soil under certain conditions as a result of product use. Use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

Surface Water Advisory: This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted within 48 hours.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exemption: The Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls over long-sleeved shirt and long pants, chemical-resistant gloves made from any waterproof material, chemical resistant footwear plus socks, and chemical-resistant headgear for overhead exposures.

Notify workers of the application by warning them orally and posting signs at entrances to treated areas

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**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter until sprays have dried.

**PRODUCT INFORMATION**

Read the entire Directions for Use and Conditions of Sale before using this product.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS AND ESTUARIES.

- Do not apply by ground or air within 100 feet of aquatic areas listed above.
- Do not cultivate within 10 feet of an aquatic area to allow growth of a vegetative filter strip.
- See Spray Drift Management section for further information.

**SPRAY DRIFT MANAGEMENT**

Do not make applications when conditions favor drift beyond the target application area. When drift may be a problem, take measures to reduce drift, including:

1. Do not spray if wind speeds are or become excessive. Do not spray if wind speed is 15 mph or greater. If non-target crops are located downwind, use caution when spraying if wind is present.
2. Use caution when conditions are favorable for drift (high temperatures and or low relative humidity).
3. Do not apply when a temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wingspan or rotor diameter. Use the largest droplet size consistent with pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. Apply in a minimum of 5 gallons of spray solution per acre by aircraft spray equipment.

Spray should be released at the lowest possible height consistent with good pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided. Make aerial or ground applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature. Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Apply Racht Fungicide with ground or aerial equipment using sufficient volume of spray to provide thorough coverage. Unless specified otherwise in the crop-specific directions, for aerial applications use a minimum of 5 gallons/acre and for ground applications use a minimum of 20 gallons/acre. Check equipment calibration frequently. Continuous agitation is required to keep the material in suspension.

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Complete coverage and uniform application are essential for the most effective results, especially when lower spray volumes are applied. If necessary, increase the spray volume per acre for complete crop coverage. Higher spray volume will generally result in better coverage and disease control. See local State Extension Service recommendations for application schedules.

### **SPRAY EQUIPMENT**

Equip sprayers with nozzles that provide accurate and uniform application. Calibrate sprayer before use. Check nozzle manufacturer's recommendations. Use a pump with capacity to: (1) maintain at least 35-40 psi at nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute. Use a jet agitator or liquid sparge tube for agitation. For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state and local agricultural recommendations.

### **MIXING AND COMPATIBILITY INSTRUCTIONS**

**SHAKE WELL BEFORE USING;** some settling may occur during prolonged periods of non-use.

**Mixing:** Thoroughly clean spray equipment before using this product. Fill spray tank half full and add recommended amount of RACHET Fungicide into the spray tank while filling with water to the desired level. Operate the agitator while mixing.

High pH environments cause a shortened tank life for diluted product. The buffering of tank water to pH 6-7 prior to the addition of RACHET Fungicide is recommended. Do not tank mix RACHET Fungicide with copper-containing materials or with highly alkaline pesticides, such as Bordeaux mixture or lime sulfur.

Prepare no more spray mixture than is required for the immediate operation. If other materials are added to the spray tank, RACHET Fungicide should be thoroughly dispersed prior to the addition of other materials. See Compatibility section below for additional information. Begin application of the solution when the RACHET Fungicide has completely dispersed in the mix water. Maintain agitation until all of the mixture has been applied. Do not let spray mixture stand overnight in the spray tank. For best results, use spray mixture the same day it is prepared. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

**Compatibility:** To determine the compatibility of RACHET Fungicide with other products, the following procedure should be followed: Pour the recommended proportions of the products into a suitable container of water, mix thoroughly and allow to stand at least five minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered physically compatible. Consult the intended tank mix partner product label for appropriate application rates and use instructions. Follow the label directions for the most restrictive of label precautions and limitations. This product cannot be mixed with any product containing a label prohibition against such mixing. Read and observe the most restrictive precautionary statements and other information appearing on product labels used in mixtures.

**THE PLANT SAFETY OF ALL POTENTIAL TANK MIXES INCLUDING ADDITIVES AND OTHER PESTICIDES ON ALL TARGET PLANTS HAS NOT BEEN TESTED. BEFORE APPLYING ANY TANK MIXTURE NOT SPECIFICALLY RECOMMENDED ON THIS LABEL, THE SAFETY TO THE TARGET PLANT SHOULD BE CONFIRMED.**

### **INTEGRATED PEST (DISEASE) MANAGEMENT**

RACHET Fungicide should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area. RACHET Fungicide may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

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## RESISTANCE MANAGEMENT

RACHET Fungicide is a mixture of Group 1 (thiophanate-methyl) and Group 3 (tebuconazole) fungicides. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season.

## DISEASE CONTROL IN GOLF COURSE TURF

### TURF USE RESTRICTIONS AND PRECAUTIONS

- For use on golf course turf only.
- Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, playfields, recreational park athletic fields, athletic fields located on or next to schools (i.e., elementary, middle and high school), campgrounds, churches, and theme parks.
- Do not apply to home orchards/backyard fruit trees after fruit set.
- Not for homeowner use.
- Not for use on turf being grown for sale or commercial use as sod.
- For use only by certified applicators or those under their immediate supervision.
- Do not apply with fixed wing or rotary aircraft.
- Do not use clippings for animal feed.
- Do not apply more than 6 applications per year.

### Product Information

For use on all Golf turf applications of cool season and warm season grasses (such as Bentgrasses, Bermudagrass, Bluegrasses, Fescues, Ryegrasses, St. Augustine grasses, and Zoysia) or their mixtures. RACHET Fungicide is not phytotoxic to any of the above mentioned grasses when used in accordance with the label.

### Notes:

- Bermudagrass can be sensitive to RACHET Fungicide under certain conditions. Do not apply consecutive applications during or just after dormancy break.
- For all grasses, avoid consecutive applications of RACHET Fungicide, other DMI containing fungicides or Paclobutrazol containing growth regulator unless specifically indicated for individual disease management.

RACHET Fungicide can be used for the prevention and control of the diseases mentioned in the table below. Begin applications when conditions favor disease development. Preventative treatments can be applied using 21-28 day intervals as indicated. When treating golf greens, always treat aprons and approaches. Spray uniformly over the area to be treated with properly calibrated equipment.

Apply the specified amount of RACHET Fungicide in sufficient water for thorough coverage. A final spray mixture volume of 66 – 132 gallons per acre (1.5 – 3.0 gallons per 1,000 sq ft) is recommended. Apply using properly calibrated low volume, hand held, mechanical or motorized ground broadcast equipment. Application to small areas may be made with low-pressure handwand or backpack equipment. Maintain constant agitation during application.

Depending on the disease, RACHET Fungicide should be watered into the crown and active root zone for best results. Lightly water the treatment area to move the fungicide into the active root zone with one to two tenths inch of water. Excessive irrigation may move application below active root zone and reduce application effectiveness. Course design and drainage will influence irrigation practices. Make all applications after mowing and allow foliage to dry thoroughly before irrigation.

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**Table 1: Maximum Individual Application Rates and Minimum Re-Treatment Intervals**

Use Site	Maximum Application Rate of RACHET Fungicide	Minimum Re-Treatment Interval	Comments
Golf Course Tees, Greens, Aprons	1.93 Gallons/Acre (5.7 fl. oz / 1,000 sq ft)	21 days	
Golf Course Fairways –except Florida	1.51 Gallons/Acre (4.5 fl. oz / 1,000 sq ft)	21 days	Excludes Florida
Golf Course Fairways – Florida Only during overseeding	0.76 Gallons/Acre (2.2 fl. oz / 1,000 sq ft)	21 days	In Florida only during overseeding.

**Table 2: Maximum Yearly Application Rates**

Use Site	Maximum Yearly Rate of RACHET Fungicide		Comments
	per Acre	per 1,000 sq ft	
Golf Course Tees, Greens, Aprons	6.05 Gallons	17.85 fl. oz.	
Golf Course Fairways –except Florida	1.51 Gallons	4.5 fl.oz.	Excludes Florida
Golf Course Fairways – Florida Only during overseeding	0.76 Gallons	2.2 fl.oz.	In Florida only during overseeding.

**Table 3: Golf Course Turf Disease Control**

DISEASE	RATE of RACHET Fungicide (fl. oz./1000 Sq Ft)	NOTES and RESTRICTIONS
Dollar Spot ( <i>Sclerotinia homoeocarpa</i> ) Copper Spot ( <i>Gloeocercospora sorghi</i> ) Powdery Mildew ( <i>Erysiphe graminis</i> ) Rusts ( <i>Puccinia</i> spp.) Red Thread ( <i>Laetisaria fuciformis</i> ) Pink Patch ( <i>Limonomyces rosipellis</i> ) Bentgrass Dead Spot ( <i>Ophiosphaerella agrostis</i> ) Leaf, Crown and Root Diseases ( <i>Drechslera</i> , <i>Bipolaris</i> , <i>Curvularia</i> , <i>Exserohilum</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)  High 4.8 – 5.7 (13-15.5 pints/acre)	For prevention, begin applications when conditions are favorable for disease development using the low to medium rate. For curative treatments, use the medium to high rate. This product may be tank mixed with Legend™ or Protect® at labeled rates. Do not make two consecutive applications of RACHET Fungicide or other DMI containing fungicides. Alternate with another fungicide with a different mode of action. A second application may be made after 21 days.

DISEASE	RATE of RACHET Fungicide (fl. oz./1000 Sq Ft)	NOTES and RESTRICTIONS
Brown Ring Patch ( <i>Waitea circinata</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)	For prevention, begin applications when conditions are favorable for disease development. Make two applications using the low to medium rate tank mixed with Affirm® at labeled rates. Repeat application at 21 day interval.
Brown Patch/Rhizoctonia Blight, Large Patch ( <i>Rhizoctonia solani</i> )  Cool Season Brown Patch ( <i>Rhizoctonia cerealis</i> )  Anthracnose, Basal and Foliar ( <i>Colletotrichum cereale</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)  High 4.8 – 5.7 (13-15.5 pints/acre)	For prevention, begin applications when conditions are favorable for disease development using the low to medium rate. For curative treatments, use the medium to high rate. This product can be tank mixed with Legend™, Protect®, or Affirm® at labeled rates. Do not make two consecutive applications of RACHET Fungicide or other DMI containing fungicides. Alternate with another fungicide with a different mode of action. A second application may be made after 21 days.
Bermudagrass decline ( <i>Gaeumannomyces graminis</i> var. <i>graminis</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)	For prevention, begin applications two or four weeks prior to the historical appearance of disease symptoms. Make two applications at the low to medium rate, 21 days apart or one application at the high rate. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and root zone of the turf. The amount of water is dependent on the depth of the root zone. Alternate with another fungicide with a different mode of action as needed. Initiate cultural control practices at the same time the fungicide is applied. Refer to your local County Extension Service for this information.
Take All Patch ( <i>Gaeumannomyces graminis</i> var. <i>avenae</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)	For prevention, make two applications at low to medium rate, 21 days apart or one application at high rate in the fall when root zone soil temperatures reach 75° F and again in the spring at 55-60° F root zone soil temperatures. Applications in both fall and spring may be necessary. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone.
Gray Leaf Spot ( <i>Pyricularia grisea</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)	For prevention, begin applications when conditions are favorable for disease development (July-Aug) using the low to medium rate. For curative treatments, use the medium to high rate and tank mix with Legend or Protect at labeled rates. Do not make two consecutive applications of RACHET Fungicide or other DMI containing fungicides. Alternate with another fungicide with

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DISEASE	RATE of RACHET Fungicide (fl. oz./1000 Sq Ft)	NOTES and RESTRICTIONS
		a different mode of action, such as a Strobilurin [FRAC 11]. A second application may be made after 21 days.
Stripe Smut ( <i>Ustilago striiformis</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)  High 4.8 – 5.7 (13-15.5 pints/acre)	Make a single application to historical disease areas in spring as grass growth begins. For curative treatments, use the medium to high rate.
Spring Dead Spot ( <i>Leptosphaeria korrea</i> , <i>L. narmari</i> , <i>Ophiosphaerella herpotricha</i> , <i>Gaeumannomyces graminis</i> )  Necrotic Ring Spot ( <i>Leptosphaeria korrea</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)	For prevention, make two to three applications at the low to medium rate, 21 days apart or one application at the high rate in the fall when root zone soil temperatures reach 75° F. A spring application may be necessary in areas where disease pressure is known to be heavy. Apply using low to medium rate when root zone soil temperature reaches 55-60° F. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone.
Fusarium Patch ( <i>Fusarium roseum</i> and <i>F. nivlae</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)  High 4.8 – 5.7 (13-15.5 pints/acre)	Apply first application in mid-June or 2-4 weeks prior to time this blight normally becomes evident. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone. Alternate with another fungicide with a different mode of action, such as a Strobilurin [FRAC 11]. A second application may be made after 21 days.
Summer Patch ( <i>Magnaporthe poae</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)  High 4.8 – 5.7 (13-15.5 pints/acre)	For prevention, Apply in the spring when root zone soil temperatures reach 55-60° F. Do not make two consecutive applications of RACHET Fungicide or other DMI containing fungicides. Alternate with another fungicide with a different mode of action, such as a Strobilurin [FRAC 11]. Make additional applications at 21day intervals. See local university recommendations for additional information. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone.

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DISEASE	RATE of RACHET Fungicide (fl. oz./1000 Sq Ft)	NOTES and RESTRICTIONS
Zoysia Patch, Large Patch of Zoysia ( <i>Rhizoctonia solani</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)  High 4.8 – 5.7 (13-15.5 pints/acre)	Make first application in early fall (mid-September to mid-October) prior to development of disease symptoms. Alternate with another fungicide with a different mode of action, such as Affirm®. Second and third applications may be made at 21 day intervals. See local university recommendations for additional information. An additional application in early spring may be necessary in areas where disease pressure is known to be heavy.
Gray Snow Mold/ Typhula Blight ( <i>Typhula incarnate</i> )  Pink Snow Mold/ Microdochium Patch ( <i>Microdochium nivalis</i> )	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)  High 4.8 – 5.7 (13-15.5 pints/acre)	Apply in the fall, before anticipated turf dormancy and before first snow cover. If turf breaks dormancy during winter months a second application may be made. Do not apply over snow cover, or when turf is dormant. It is recommended that RACHET Fungicide be tank-mixed with other registered snow mold products, such as Affirm®, Legend™, or Iprodione for best season long results.
Fairy Ring <i>Chlorophyllum (Lepiota),</i> <i>Lycoperdon, Marasmius</i>	Low 2.2 – 3.3 (6-9 pints/acre)  Med 3.3 – 4.4 (9-12 pints/acre)	For prevention in Cool season turf, make two applications at the low-medium rate in the spring when root zone soil temperatures reach 55-60° F. Make a second application using a 21 day interval. Immediately after fungicide is applied, irrigate the area with sufficient water to move the active ingredient down into the crown and active root zone of the turf. The amount of water is dependent on the depth of the root zone. Do not use a wetting agent unless hydrophobic soil conditions exist. For curative treatment, use the medium to high rate. For Warm season turf breaking dormancy, Do not make two consecutive applications of RACHET Fungicide or other DMI containing fungicides. Alternate with another fungicide with a different mode of action, such as Affirm®, Heritage, Insignia or Prostar. For hydrophobic areas, Use an appropriate wetting agent to effectively penetrate the hydrophobic zone commonly created with this disease.
<b>NOTE:</b> Apply the specified amount of RACHET Fungicide in 1.0 to 3.0 gallons of water per 1000 sq. ft. Make all applications after mowing and allow foliage to dry thoroughly before irrigation. Do not use clippings for animal feed. Do not exceed 17.75 fl.oz. of RACHET Fungicide per 1000 sq. ft. per year. Do not exceed 6 applications per year.		

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**DISEASE CONTROL IN FIELD, NURSERY AND CONTAINER ORNAMENTALS AND COMMERCIAL and RESIDENTIAL LANDSCAPES**

**ORNAMENTAL USE RESTRICTIONS AND PRECAUTIONS**

- For use on ornamental plants only; not for woodlands or forest management.
- Not for homeowner use.
- Do not apply more than 51 fl. oz. (3.2 pints) of RACHET Fungicide (equal to 1.4 lb Thiophanate-methyl and 0.28 lb Tebuconazole) per acre is a single application.
- Do not apply more than 1.58 gallons (12.7 pints) of RACHET Fungicide (equal to 5.7 lb Thiophanate-methyl and 1.113 lb Tebuconazole) per acre per year.
- Do not apply to bearing fruit trees or vegetables
- Chemigation: Do not apply this product through any type of irrigation system.

**Application Information**

RACHET Fungicide can be used in a preventative and curative disease control program for the listed plant types and disease in the table below. Optimum disease management is obtained when RACHET Fungicide is used in conjunction with sound disease management practices.

Apply material with properly calibrated hand held, mechanical or motorized spray equipment. Begin applications when disease first appears and repeat at 14-21 day intervals during the growing season. Use the shortest interval when conditions are unusually favorable for the development of disease. For hand held, mechanical, or motorized applications, mix as directed below and apply as a full coverage spray to drip for the prevention and control of the diseases listed below. Choose a finished spray volume appropriate for the size of the plants and amount of foliage, which will provide thorough coverage throughout the canopy. Allow sprays to dry before overhead irrigation is applied.

Apply RACHET Fungicide at rates of 16-36 fl oz (1-2 ¼ pints) per acre in 100 gallons of water. Spray volume may range from 50 up to 300 gallons of finished spray per acre depending upon equipment, plant species and plant growth stage at time of application.

**Note:** The "Directions for Use" of this product reflect the cumulative inputs from both historical field use and product testing programs. However, it is impossible to test this product on all species and cultivars. A preliminary trial is suggested on a small scale before a full treatment is applied to any plant type not shown on this label but found in a similar use site with a listed disease problem. Wait 5-7 days after treatment to evaluate results. This product is not recommended for use on African Violets, Begonias, Boston Fern, Eastern Cactus, Geraniums, and Swedish Ivy.

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**Ornamentals Disease Control**

PLANTS	DISEASE	APPLICATION	
		To Prevent Disease	To Treat Existing Disease
Roses	Black Spot Powdery Mildew Rust	Apply every 14-21 days during the growing season, starting when leaves first appear.	Apply every 14 days for a total of 3 applications beginning at the first sign of disease.
Flowers	Leaf Spot Powdery Mildew Rust Southern Blight	Apply at least 3 times per year, 14-21 days apart, beginning with Spring bud break. Rotation or Tank mixing with barrier protectant fungicides is recommended for resistance management.	Apply every 14 days for a total of 3 applications beginning at the first sign of disease.
Crabapples (Ornamental) Dogwoods and Other Landscape (Ornamental) Trees	Anthracnose Leaf Spot Powdery Mildew Rust Scab		
Azaleas, Camellas, Rhododendrons and Other Landscape (Ornamental) Shrubs	Anthracnose Black Spot Leaf Spot Petal Blight Powdery Mildew Rust Southern Blight	Petal Blight – Apply 2 – 3 times per week into the flowers as the open and develop color.	Apply every 14 days for a total of 3 applications beginning at the first sign of disease.
Ground Covers and Vines			

**HOW MUCH TO USE FOR SMALL PLANTINGS: ADD 2 TEASPOONS (10 mL) TO 1 GALLON OF WATER.**

**Pump Style Sprayers**

1. Add the appropriate amounts of concentrate and water to the sprayer tank.
2. Close the sprayer, shake well and pressurize.
3. Adjust nozzle to a coarse spray pattern and apply.
4. Occasionally re-pressurize the sprayer if needed to maintain a good spray pattern.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Storage:** Store in a cool, dry place and in such a manner as to prevent cross-contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is applied for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away. You may contact CHEMTREC for decontamination procedures or any other assistance that may be necessary. The number is 1-800-424-9300.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide spray mixture of rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal:**

**Non refillable container.** Do not use or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and collect the rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Offer for recycling, if available. If not recycled, then puncture and dispose of in a sanitary landfill or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**CONDITIONS OF SALE AND LIMITED WARRANTY:**

The Directions for Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of CLEARY CHEMICAL LLC. or the SELLER. To the extent consistent with applicable law, all such risks shall be assumed by the buyer.

CLEARY CHEMICAL LLC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the inherent risks referred to above.

CLEARY CHEMICAL LLC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CLEARY CHEMICAL LLC. AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

CLEARY CHEMICAL LLC. and the SELLER offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of CLEARY CHEMICAL LLC.

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